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TRADEMARK OFFICE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

By: Yoshihiko HIBINO et al

Serial Number: 09/673,567

Filed: October 18, 2000

For: INK JET RECORDING PAPER

Group Art Unit: 1774

Examiner: P. Schwartz

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REQUEST FOR RECONSIDERATION

Commissioner for Patents
Washington, D.C. 20231

Date: February 24, 2003

Sir:

Reconsideration of the rejections contained in the Office Action dated October 23, 2002, in view of the following comments and the attached documents is respectfully requested.

In the Office Action, claims 1 to 5 again were rejected under the first paragraph of 35 USC § 112 as not being enabled by the specification as filed. In particular, it was asserted that (a) the translation of Japanese Industrial Standard JIS-8148 was insufficient since it was dated subsequent to the filing date of the application, and (b) the composition "polyvinyl alcohol-cation monomer graft copolymer" was not enabled since (i) the documents submitted do not predate the filing date of the application and (ii) there is no evidence that the materials disclosed therein were available in the United States. Reconsideration of this rejection in view of the attached documents and the following comments is respectfully requested.

To date, applicants have not been able to obtain an English version of JIS P-8148 dated prior to the filing date of the subject application. However, enclosed herewith is a Japanese version of JIS P-8148 (pages 298-302). It is to be particularly noted that the legend "P 8138-1993" set forth on page 298, right upper portion, means that this version was published in 1993. It is submitted that the enclosed Japanese language version is dated prior to the filing date and that there is no necessity that the Standard be available in English.

With respect to (i) of (b) above, enclosed herewith is a revised version of safety data sheet of HYMACS SC-600L edited on December 8, 1998 (pages 1-3), and partial translation of this version. It is submitted that submission of these documents and the previously submitted information on HYMACS SC600-G2 satisfy the requirements of the first paragraph of 35 USC § 112 as to enablement by the specification that one of ordinary skill in the art would be able to practice the subject invention from the information provided.

With respect to (ii) of (b), it is submitted that the cited section of statute does not require that the material be available by being in the United States, but simply that the material is available to one in the United States. Therefore, it is submitted that a person of ordinary skill in the art would be able to practice the present invention with respect to the phrase "polyvinyl alcohol-cation monomer graft polymer." Accordingly, withdrawal of the rejection under the first paragraph of 35 U.S.C. § 112 is respectfully requested.

Claims 1 to 5 were rejected under the second paragraph of 35 USC § 112 as being indefinite. In particular, it was indicated that the use of the phrase "polyvinyl alcohol-cation graft polymer" unclear for the reasons stated. Reconsideration of this rejection in view of the above and the following comments is respectfully requested.

In response, it is submitted that obviating the above rejection under the first paragraph of 35 USC § 112 also obviates this portion of the rejection. Accordingly, withdrawal of the rejection under the second paragraph of 35 U.S.C. § 112 is respectfully requested.

Claims 1-5 were rejected under 35 USC § 103(a) as being unpatentable over the patent to Koide et al in view of the patent to Yasuda et al and the European patent publication to Koji et al. In making this rejection, it was asserted that the patent to Koide et al teaches a recording paper with a coating composition as set forth in the claim 1 and with the properties as recited in claim 1. Without specifically so stating, it apparently was acknowledged that the disclosed recording paper does not include a cationic fixing agent as defined in claim 1. Then, apparently reliance was made upon the secondary patent to Yasuda et al for teaching the inclusion of such an agent and also for teaching a cationic polyvinyl alcohol copolymer apparently in reference to the specific subject matter of claim 3. The Koji et al patent publication apparently was relied upon for teaching the additional subject matter of claims 2 and 5. Reconsideration of this rejection in view of the following

detailed comments is respectfully requested.

Before discussing the rejection in detail, a brief review of the presently claimed invention may be quite instructive. Specifically, the subject invention relates to a so-called plain paper type ink jet recording paper. As defined in claim 1, the ink jet recording paper comprises a neutral base paper comprising a wood pulp as a starting material on which is coated a coating solution containing a fluorescent brightening agent, a water-soluble binder and a cationic polymer fixing agent. Of significance, the coated paper has an ISO brightness of not less than 95% and a fluorescence intensity of 7-15%. Furthermore, as defined in claim 2, the neutral base paper is preferably made using calcium carbonate as a filler and an ash content of the base paper is 5-20%.

As is described in the subject specification at, for example, page 6 line 21 to page 9, line 2, by coating the base paper with the solution containing a fluorescent brightening agent, a water-soluble binder and a cationic fixing agent so as to attain the specified ISO brightness and fluorescent intensity, and preferably, by adjusting the ash content of the base paper into the specific range, the resulting ink jet recording paper has improved properties and performance. Specifically, the ink jet recording paper is improved in image density of recorded images and color reproducibility, and moreover, has excellent water resistance of the printed portions and excellent surface strength. It is submitted that such an ink jet recording paper is not taught or suggested by the cited patents to Koide et al and Yasuda et al and the patent publication to Koji et al, whether taken singly or in combination.

As was mentioned above, it apparently was acknowledged in the subject Action that the Koide et al patent does not teach use of a cationic polymer fixing agent, but it was asserted that a person of ordinary skill would readily use a cationic polymer fixing agent in the Koide et al patent from the teachings of the Yasuda patent so as to achieve the presently claimed invention. It is submitted that such a conclusion is entirely without basis.

In support thereof, attention is directed to the enclosed Declaration Under 37 CFR 1.132 of Mr. Koji Idei, one of the inventors herein. In the Declaration, Mr. Idei reports on experiments which compare the ink jet recording paper in accordance with the present invention with the product according to the Koide et al patent where a cationic polymer fixing agent is not used. The Declaration clearly shows that the ink jet recording paper in accordance with the present invention is superior to the product of the Koide et al patent in ISO brightness, fluorescence intensity, image density, water resistance and image reproducibility, all because of the use of a cationic polymer fixing agent.

Thus, it is submitted that the Declaration demonstrates that these products according to the Koide et al patent do not have the properties as recited in claim 1. In addition, the Declaration shows an unexpected or surprising result for the claimed recording paper relative to the recording paper of the cited Koide et al patent which thus demonstrates the unobviousness of the claimed subject matter.

It is submitted that none of the cited patent publications teaches or suggests that such advantage is attained by using a cationic polymer fixing agent. More particularly, the Koide et al patent merely teaches that the paper is used for ink jet printer as one of various image forming apparatuses only in the first paragraph of column one. The Koide et al patent mainly relates to a paper for electrophotographic recording, and does not concretely study a paper for ink jet recording. As described in the Declaration, the sample obtained according to the Koide et al patent is unsuitable for ink jet recording.

Rather, the gist of the Koide et al patent is to increase color chroma of a color toner image formed with color toners on image forming paper by adding a blue fluorescent dye under conditions where no or a little amount (0.0002 wt% or less) of blue dye was added as a means for brightening the image forming paper. It is taught that this brightening thereby prevents decrease of the reflectance in green to red regions, increases reflectance in blue region and makes the reflectance in blue to red regions almost even (see column 2, line 66 to column 3, line 12). In distinct contrast, according to the present invention, ISO brightness, fluorescence intensity, image density, water resistance and image reproducibility are enhanced by using a cationic polymer fixing agent.

Furthermore, the Koide et al patent discloses a spectral reflectance of 87-100%, as was indicated in the Action. However, as is specified in claim 1 of the Koide et al patent, the spectral reflectance is measured with light in a wide wavelength of 440-640 nm. In contrast, ISO brightness specified in accordance with the present invention is measured

with light in a narrow wavelength in the vicinity of 460 nm (see Table A.1 of JIS P 8148:2002). Thus, the spectral reflectance as set forth in the Koide et al patent is not comparable with the ISO brightness in the presently claimed invention.

In addition, it must be emphasized in support of the patentability of the subject invention over the teachings of the cited patents is that the patents provide no suggestion to motivate one of ordinary skill in the art to combine their teachings in the manner proposed by the examiner. It is well established principle of U.S. patent practice that the prior art must contain some suggestion for combination since, without such, any combination is pure speculation on the part of the examiner and is based on a prohibited hindsight reconstruction from applicants' own disclosure.

For the reasons stated above, withdrawal of the rejection under 35 U.S.C. § 103(a) and allowance of claims 1-5 over the cited patent publications are respectfully requested.

In view of the foregoing, it is submitted that the subject application is now in condition for allowance and early notice to that effect is earnestly solicited.

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In the event this paper is not timely filed, the undersigned hereby petitions for an appropriate extension of time. The fee for this extension may be charged to Deposit Account No. 01-2340, along with any other additional fees which may be required.

Respectfully submitted,

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Enclosures: JIS P-8148 in Japanese
Product Specification Sheet
Declaration of Mr. Idei